tion, or sensible coolness, may be measured by the difference between the dry and wet bulb thermometers, in which case the resulting sensible temperatures are simply the temperatures of the wet-bulb thermometer as obtained by the whirling apparatus used in the shaded shelter, and correspond to the temperatures felt by persons standing in the shade of trees or houses, exposed to a natural breeze of at least 6 miles per hour. The temperature of the wet-bulb thermometer and its depression below the dry bulb are the fundamental data for all investigations into the relation between human physiology and the atmosphere. In order to present a monthly summary of the atmospheric conditions from a hygienic and physiological point of view, Table VIII has been prepared, showing the maximum, minimum, and mean readings of the wet-bulb thermometer at 8 a. m. and 8 p. m., seventy-fifth meridian time.

## PRECIPITATION.

[*In inches and hundredths.*]

The *distribution of precipitation* for the month of March, 1895, as determined by reports from about 2,500 stations, is exhibited on Chart III. The numerical details are given in Tables I, II, and III.

The precipitation for the current month was heaviest, 6 to 13 inches, on the coasts of Washington and Oregon, but least, averaging less than 0.5, from western Texas north to Manitoba and Saskatchewan.

The *diurnal variation* is shown by Table XII, which gives the total precipitation for each hour of seventy-fifth meridian time, as deduced from self-registering gauges kept at about 43 regular stations of the Weather Bureau; of these 37 are float gauges and 3 are weighing gauges.

The *normal precipitation* for each month is shown in the Atlas of Bulletin C, entitled "Rainfall and Snow of the United States, compiled to the End of 1891, with Annual, Seasonal, Monthly, and other Charts."

The *current departures* from the normal precipitation are given in Table I, which shows that precipitation was deficient over Canada, New England, the Atlantic coast north of Cape Hatteras, southern Florida, the greater part of Mississippi, Louisiana, Arizona, as also the northern part of the United States; it was generally in excess over the central portion of the United States. The large departures from the monthly normal were: excesses, Neah Bay, 5.0; Mobile, 3.1; deficits, Portland, Oreg., 3.2; Chatham, N. B., 3.1.

The *average departure* for each district is given in Table I. By dividing these by the respective normals for this month the following corresponding percentages are obtained (precipitation is in excess when the percentages of the normal exceeds 100):

Above the normal: South Atlantic, 122; Key West, 118; east Gulf, 115; west Gulf, 103; northern slope, 115; north Pacific, 107; south Pacific, 127.

Normal: Missouri Valley, 100.

Below the normal: New England, 81; south Atlantic, 77; Ohio Valley and Tennessee, 73; Lower Lake, 54; Upper Lake, 39; North Dakota, 19; Upper Mississippi, 59; middle slope, 78; Abilene (southern slope), 10; southern plateau, 27; middle plateau, 41; northern plateau, 75; middle Pacific, 66.

The *years of greatest and least precipitation* are given in the REVIEW for March, 1894. The precipitation for the current month was not the greatest on record at any regular station of the Weather Bureau. but it was the least on record at Moorhead, 0.03; Green Bay, 0.41; Kansas City, 0.95; Spokane, 0.57; Carson City, 0.41; Tucson, trace.

The *total accumulated monthly departures* from normal precipitation from the beginning of the year to the end of the current month are given in the second column of the following table; the third column gives the ratio of the current accumulated precipitation to its normal value.

| Districts. | Accumulated departures. | Accumulated precipitation. | Districts. | Accumulated departures. | Accumulated precipitation. |
|---|---|---|---|---|---|
| | *Inches.* | *Per ct.* | | *Inches.* | *Per ct.* |
| South Atlantic | + 2.50 | 120 | New England | — 3.90 | 68 |
| Key West | + 2.30 | 147 | Middle Atlantic | — 1.90 | 88 |
| Northern slope | + 0.40 | 122 | East Gulf | — 1.30 | 82 |
| Middle slope | + 0.20 | 105 | West Gulf | — 2.50 | 77 |
| South Pacific | + 2.80 | 145 | Ohio Valley and Tenn. | — 3.60 | 73 |
| | | | Lower Lakes | — 2.60 | 68 |
| Middle plateau | 0.00 | 100 | Upper Lakes | — 1.70 | 73 |
| Southern slope (Abilene) | 0.00 | 100 | North Dakota | — 0.80 | 60 |
| | | | Upper Mississippi | — 2.70 | 55 |
| | | | Missouri Valley | — 1.20 | 73 |
| | | | Southern plateau | — 0.40 | 78 |
| | | | Northern plateau | — 1.80 | 70 |
| | | | North Pacific | — 3.60 | 85 |
| | | | Middle Pacific | — 0.60 | 96 |

Details as to excessive precipitation are given in Tables XIII and XIV.

The total snowfall at each station is given in Table II.

## WIND.

LOCAL STORMS.

Destructive or severe local storms were reported as follows:

**3d.**—Augusta, Ga., tornado; funnel-shaped cloud.

**7th.**—Near Alco and Brewton, Ala., windstorms. Pensacola, Fla., thunderstorm.

**8th.**—Charlotte, N. C., and Knoxville, Tenn., windstorms. Nashville, Tenn., thunderstorm.

**10th.**—Meade, Kans., thunderstorm; several persons stunned.

**13th.**—Lindsey, Clayton, and Oneonto, Ala., windstorms. Oxford, La., thunderstorm.

**14th.**—Montgomery, Ala., thunderstorm. Oneonto, Ala., windstorm.

**15th.**—Parkersburg, W. Va., sleetstorm.

**20th.**—Columbus, Ga., rainstorm.

**23d.**—Hillsboro, Wis., windstorm.

**24th.**—Franklin, Ky., thunderstorm.

**25th.**—Altamont, N. Y., windstorm. Pittsburg, Pa., Delaware, Kilbourne, Milfordton, and New Moscow, Ohio, thunderstorms.

**26th.**—Muncie, Ind., windstorm.

**27th.**—Wheeling, W. Va., thunderstorm; horse killed by lightning.

**28th.**—New York, N. Y., windstorm.

**30th.**—McCune and Versailles, Mo., thunderstorms. Amarillo, Tex., windstorm and small whirlwind. Cheyenne, Wyo., and Denver, Colo., snowstorms.

**31st.**—Auburn, Nebr., thunderstorm.